controlling a tuner to tune a converter to receive said at least one specific channel designated by said processed datum;

controlling a selective transfer device to input to a control signal detector at least a portion of said at least one specific channel designated by said processed datum;

[controlling] <u>causing</u> a control signal detector to [search for] <u>detect</u> at least one control signal in said at least one specific channel designated by said processed datum;

controlling a selective transfer device to input to a computer control signals detected in said at least one specific channel designated by said processed datum;

controlling a computer to respond to control signals detected in said at least one specific channel designated by said processed datum;

controlling a television monitor to display at least one of video and audio contained in said at least one specific channel designated by said processed datum;

controlling a video recorder to one of record and play one of video and audio contained in said at least one specific channel designated by said processed datum; and

controlling a selective transfer device to communicate to at least one of a storage device and an output device said at least one specific channel designated by said processed datum.

II.   REMARKS

A.   Introduction

The Office Action dated August 8, 1998 has been carefully reviewed and the foregoing amendments made in response thereto.

Claims 3, 8, 10, 18, 32, 35, 37, 39, 41, 45, and 46 are amended. Claims are pending in the application.

Claims 3-5, 7-10, 12, 13, 17, 19-22, 25, 27, and 30-46 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such

a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 17, 19, 22, 27, and 43 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 3-46 stand rejected under 35 U.S.C. § 102 (a) as being anticipated by USP 4,536,791 to Campbell, hereinafter Campbell '791.

Claims 3-46 remain active in this application. No new matter is presented in the foregoing amendments. Approval and entry of same is respectfully requested.

B. Response to Requirement Imposed Upon Applicants to Resolve Alleged Conflicts Between Applicants' Applications.

Applicants respectfully traverse the requirements of the Office Action paragraph 5.

Paragraph 5 of the Office Action requires Applicants to either:

(1) file terminal disclaimers in each of the related 328 applications terminally disclaiming each of the other 327 applications; or

(2) provide an affidavit attesting to the fact that all claims in the 328 applications have been reviewed by applicant and that no conflicting claims exist between the applications; or

(3) resolve all conflicts between claims in the related 328 applications by identifying how all the claims in the instant application are distinct and separate inventions from all the claims in the above identified 328 applications.

In addition, Examiner states that failure to comply with any one of these requirements will result in abandonment of the application.

Examiner states that the requirement has been made because conflicts exist between claims of the related co-pending applications, including the present application. Examiner sets forth only the serial numbers of the co-pending applications without an indication of which claims are conflicting. Examiner has also attached an Appendix providing what is deemed to be clear evidence that conflicting claims exist between the 328 related co-pending applications and

the present application. Further, Examiner states that an analysis of all claims in the 328 related

co-pending applications would be an extreme burden on the Office requiring millions of claim

comparisons.

Applicants respectfully traverse these requirements in that Examiner has both improperly

imposed the requirements, and has incorrectly indicated that abandonment will occur upon

failure to comply with the requirement. Applicants' traversal is supported by the fact that 37

C.F.R. § 1.78 (b) does not, under the present circumstances, provide Examiner with authority to

require Applicants to either: 1) file terminal disclaimers; 2) file an affidavit; or 3) resolve all

apparent conflicts. Additionally, the penalty of abandonment of the instant application for failure

to comply with the aforementioned requirement is improper for being outside the legitimate

authority to impose abandonment upon an application. The following remarks in Section (B)

will explain Applicants' basis for this traversal.

1. The PTO's New Requirement is an Unlawfully Promulgated Substantive Rule Outside the Commissioner's Statutory Grant of Power

The PTO Commissioner obtains his statutory rulemaking authority from the Congress

through the provisions of Title 35 of the United States Code. The broadest grant of rulemaking

authority -- 35 U.S.C. § 6 (a) -- permits the Commissioner to promulgate regulations directed

only to "the conduct of proceedings in the [PTO]". This provision does NOT grant the

Commissioner authority to issue substantive rules of patent law. Animal Legal Defense Fund v.

Quigg, 932 F.2d 920, 930, 18 USPQ2d 1677, 1686 (Fed. Cir. 1991).[1] Applicants respectfully

submit that the Examiner's creation of a new set of requirements based upon 37 CFR § 1.78(b)

constitutes an unlawful promulgation of a substantive rule in direct contradiction of a long-

established statutory and regulatory scheme.

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[1] Accord Hoechst Aktiengesellschaft v. Quigg, 917 F.2d 522, 526, 16 USPQ2d 1549, 1552 (Fed. Cir. 1990); Glaxo Operations UK Ltd. v. Quigg, 894 F.2d 392, 398-99, 13 USPQ2d 1628, 1632-33 (Fed. Cir. 1990); Ethicon Inc. v. Quigg, 849 F.2d 1422, 1425, 7 USPQ2d 1152, 1154 (Fed. Cir 1988).

2. The PTO's Requirement is a Substantive Rule

The first determination is whether the requirement as imposed by the PTO upon Applicants is substantive or a procedural rule. The Administrative Procedure Act offers general guidelines under which all administrative agencies must operate. A fundamental premise of administrative law is that administrative agencies must act solely within their statutory grant of power. *Chevron v. Natural Resources Defense Council*, 467 U.S. 837 (1984). The PTO Commissioner has NOT been granted power to promulgate substantive rules of patent law. *Merck & Co., Inc. v. Kessler*, 80 F.3d 1543 (Fed. Cir. 1996), citing, *Animal Legal Defense Fund v. Quigg*, 932 F.2d 920, 930, 18 USPQ2d 1677, 1686 (Fed. Cir. 1991).

The appropriate test for such a determination is an assessment of the rule' s impact on the Applicants' rights and interests under the patent laws. *Fressola v. Manbeck*, 36 USPQ2d 1211, 1215 (D.D.C. 1995). As the PTO Commissioner has no power to promulgate substantive rules, the Commissioner receives no deference in his interpretation of the statutes and laws that give rise to the instant requirement. *Merck & Co., Inc. v. Kessler*, 80 F.3d 1543 (Fed. Cir. 1996), citing, *Chevron v. Natural Resources Defense Council*, 467 U.S. 837 (1984). When agency rules either (a) depart from existing practice or (b) impact the substantive rights and interests of the effected party, the rule must be considered substantive. *Nat'l Ass'n of Home Health Agencies v. Scheiker*, 690 F.2d 932, 949 (D.C. Cir. 1982), *cert. denied*, 459 U.S. 1205 (1983).

> **a. The PTO Requirement is Substantive Because it Radically Changes Long Existing Patent Practice by Creating a New Requirement Upon Applicants Outside the Scope of 37 C.F.R. § 1.78 (b)**

The Examiner's requirement is totally distinguishable from the well articulated requirement authorized by 37 CFR § 1.78 (b), because it (1) creates and imposes a new requirement to avoid abandonment of the application based on the allegation that conflicts exist between claims of the related 328 co-pending applications, and (2) it results in an effective double patenting rejection without the PTO's affirmative double patenting rejection of the

claims. Long existing patent practice recognizes only two types of double patenting, double

patenting based on 35 U.S.C. § 101 (statutory double patenting) and double patenting analogous

to 35 U.S.C. § 103 (the well-known obviousness type double patenting).[2] These two well

established types of double patenting use an objective standard to determine when they are

appropriate[3] and have a determinable result on the allowability of the pending claims.

The Examiner's new requirement represents a radical departure from long existing patent

practice relevant to conflicting claims between co-pending applications of the same inventive

entity. Two well established double patenting standards are based on an objective analysis of

comparing pending and *allowed* claims. However, in the present application, there are no

allowed claims. The Examiner's new requirement to avoid a double patenting rejection

presumes that conflicts exist between claims in the present application and claims in the 327

copending applications. This presumption of conflicts between claims represents a radical

departure from long existing patent practice as defined by 37 C.F.R. § 1.78 (b), which states:

> Where two or more applications filed by the same applicant contain conflicting
> claims, elimination of such claims from all but one application may be required in
> the absence of good and sufficient reason for their retention during pendency in
> more than one application.

Clearly, the only requirement authorized by the rule is the elimination of conflicting

claims from all but one application where conflicting claims have been determined to exist.

Furthermore, in order to determine that conflicting claims do in fact exist in multiple

applications, the only possible analysis is obviousness-type double patenting, since there are no

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[2]MPEP § 804(B)(1) states, in an admittedly awkward fashion, that the inquiry for obviousness type double patenting is analogous to a rejection under 35 U.S.C. 103: "since the analysis employed in an obvious-type double patenting determination parallels the guidelines for a 35 U.S.C. 103 rejection, the factual inquires set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are employed when making an obvious-type double patenting analysis".

[3] The objective test for same invention double patenting is whether one of the claims being compared could be literally infringed without literally infringing the other. The objective test for obviousness type double patenting is the same as the objective nonobviousness requirement of patentability with the difference that the disclosure of the first patent may not be used as prior art.

allowed or issued claims by which to employ the 35 U.S.C. § 101 statutory double patenting analysis. Once obviousness-type double patenting analysis has been applied and conflicting claims have been determined to exist, only a *provisional* obviousness-type double patenting rejection is possible until claims from one application are allowed.

In summary, the Examiner's new requirement departs from long-established practice because it (1) creates and imposes a new requirement to avoid abandonment of the application based on the allegation that conflicts exist between claims of the related 328 co-pending applications, and (2) it results in an effective double patenting rejection without the PTO's affirmative double patenting rejection of the claims.

Therefore, the Examiner's new requirement departs from existing practice and therefore is a **substantive rule** beyond the authority of the PTO and is therefore, invalid.

> b. **The New Requirement is Also a Substantive Rule Because it Adversely Impacts the Rights and Interests of Applicants to Benefits of the Patent**

The rights and benefits of a U.S. patent is solely a statutory right. *Merck & Co., Inc. v. Kessler*, 80 F.3d 1543 (Fed. Cir. 1996). The essential statutory right in a patent is the right to exclude others from making, using and selling the claimed invention during the term of the patent. Courts have recognized that sometimes new procedural rules of the PTO are actually substantive rules, e.g. when the new rule made a substantive difference in the ability of the applicant to claim his discovery. *Fressola v. Manbeck*, 36 USPQ2d 1211, 1214 (D.D.C. 1995) (emphasis added), citing, *In re Pilkington*, 411 F.2d 1345, 1349; 162 USPQ 145 (CCPA 1969); and *In re Steppan*, 394 F.2d 1013, 1019; 156 USPQ 143 (CCPA 1967).

The new requirement, on its face and as applied here, is an instance of a PTO rule making a substantive difference in Applicants' ability to claim their invention and, therefore, must be considered a substantive rule. The requirement denies Applicants rights and benefits expressly conferred by the patent statute. The measure of the value of these denied rights and benefits is that the requirement, as applied here, would deny Applicants the full and complete PTO

examination of Applicants' claims on their merits, as specified by 37 C.F.R. § 1.105. In addition, to file terminal disclaimers in each of the related 328 applications terminally disclaiming each of the other 327 applications based on the PTO's incomplete examination on the merits would deny Applicants the benefit of the full patent term of 17 years on each of Applicants' respective applications. Applicants respectfully submit that the requirement has a huge impact on their rights and interests in the presently claimed invention.

c.   Conclusion: Substantive Rule

In summary, the requirement is a change to long existing practice and/or has a substantive impact on the rights and interests of Applicants to their invention. Either finding means that the new requirement is a substantive rule. Since the Commissioner has no power to issue substantive rules, the requirement is an improperly promulgated substantive rule having no force of law.

3.   The PTO Requirement is Outside the Scope of 37 C.F.R. § 1.78 (b)

Rule 78 (b) states that:

> Where two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application.

The only **requirement** that Rule 78 (b) authorizes is the elimination of conflicting claims from all but one co-pending applications.

In the instant Office Action, Examiner has not required the elimination of all conflicting claims from all but one application, but instead has required Applicants to: 1) file terminal disclaimers in each of the related 328 applications; 2) provide an affidavit; or 3) resolve all conflicts between claims in the related 328 applications. None of the options in the requirement is authorized by Rule 78 (b), and therefore Applicants respectfully submit that such a requirement is improper.

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With respect to the PTO's authority to act within Rule 78 (b) regarding the rejection of conflicting claims, MPEP § 822.01 states that:

> Under 37 CFR § 1.78 (b), the practice relative to overlapping claims in applications copending before the examiner..., is as follows: Where claims in one application are unpatentable over claims of another application of the same inventive entity because they recite the same invention, *a complete examination should be made of the claims of each application* and all appropriate rejections should be entered in each application, including rejections based upon prior art. *The claims of each application may also be rejected on the grounds of provisional double patenting on the claims of the other application* whether or not any claims avoid the prior art. Where appropriate, the same prior art may be relied upon in each of the applications. MPEP 822.01 (6th Ed., Rev. 3, 1997), *(emphasis added)*.

In light of the requirement of the Office Action, MPEP § 822.01 and 37 CFR § 1.78 (b) are not applicable since there has not been any rejection with regard to the elimination of conflicting claims from all but one co-pending application.

4. The Assertion That Failure to Comply with the Requirement Will Result in Abandonment of Applicants' Application is Improper

Applicants' prospective failure to comply with the above requirements cannot properly result in abandonment of the present application. Applicants respectfully submit that abandonment of an application can properly occur only:

(1)   for failure to respond within a provided time period (under Rule 135);

(2)   as an express abandonment (under Rule 138); or

(3)   the result of failing to timely pay the issue fee (under Rule 316).

There is no provision in the rules permitting abandonment for failure to comply with any of the presented requirements. To impose an improper requirement upon Applicants and then hold the application is to be abandoned for failure to comply with the improper requirement violates the rules of practice before the USPTO. Furthermore, Examiner is in effect attempting to create a substantive rule which is above and beyond the rulemaking authority of the USPTO, and therefore is invalid.

In the *Application of Mott,* 539 F.2d 1291, 190 USPQ 536 (CCPA 1976), the applicant had conflicting claims in multiple applications. The CCPA held that action by the Examiner which would result in automatic abandonment of the application was legally untenable. *Id.* at 1296, 190 USPQ at 541. In the present application, Examiner has asserted that there are conflicting claims in multiple applications, and that non-compliance of the Office Action's requirement will result in an automatic abandonment. Therefore, under *Mott's* analysis, the Office Action's result of abandonment of Applicants' application is legally untenable.

5. Response to Apparent Conflict of Claims

Applicants submit that the presentation of the Office Action Appendix fails to demonstrate any conflicts between claims of the present application and claims of the co-pending applications. Rather, the Office Action Appendix compares representative claims of *other* applications in attempt to establish that "conflicting claims exist between the 328 related co-pending applications." Absent any evidence of conflicting claims between the Applicants' present application and any other of Applicants' co-pending applications, any requirement imposed upon Applicants to resolve such alleged conflicts is improper.

6. Request for Withdrawal of Requirement

Therefore, Applicants respectfully request that Examiner reconsider and withdraw the requirement that Applicants: (1) file terminal disclaimers in each of the related 328 applications terminally disclaiming each of the other 327 applications; (2) provide an affidavit attesting to the fact that all claims in the 328 applications have been reviewed by applicant and that no conflicting claims exist between the applications; or (3) resolve all conflicts between claims in the above identified 328 applications by identifying how all the claims in the instant application are distinct and separate inventions from all the claims in the above identified 328 applications, which upon failing to do so will abandon the application.

7. Filing of Supplemental Oath

Notwithstanding the foregoing, Applicants will file a supplemental oath under 37 C.F.R. § 1.67 for each application when Examiner identifies allowable subject matter. Applicants respectfully propose that the filing of individual supplemental oaths attesting to the absence of claim conflicts between previously patented claims and subsequently allowed claims is a more reasonable method of ensuring the patentable distinctness of subsequently allowed claims.

Under 37 C.F.R. § 1.105, § 1.106 & § 1.78 (b), Examiner has the duty to make every applicable rejection, including double patenting rejection. Failure to make every proper rejection denies Applicants all rights and benefits related thereto, e.g., Applicants' right to appeal, etc. Once obviousness-type double patenting analysis has been applied and conflicting claims have been determined to exist, only a *provisional* obviousness-type double patenting rejection is possible until claims from one application are allowed.

C. Response to Rejections under 35 U.S.C. § 112

1. Specification Support of Claims

Paragraph 7 of the Office Action rejects the claims under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The following tables list Applicants' claim language in the left column which corresponds to the specification support in the right column.

a. Claim 3

Claim Language	Spec. Reference	Specification Language
receiving an information transmission from a remote station and passing at least a portion of said information transmission to said computer, said information	For example column 18 lines 50-68 and	Several separate news services transmit news on different channels carried on the multi- channel cable transmission to converter boxes, 222 and 201, and to signal processor, 200. The news services preceed each news transmission with a unique signal that uniquely identifies the company or companies to which the news item refers and/or the industries. In a predetermined fashion, microcomputer,

transmission including data and at least one instruct signal;		205, instructs signal processor, 200, to hold examples of the sought for unique signals in its buffer/ comparator, 8, and compare them with all incoming signals. Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcomputer, 205. In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information in memory or transfer it to printer, 221, for printing.
	Column 19 lines 35-41	Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio.
detecting an instruct-to-select signal in said information transmission	For example column 18 lines 56-67	In a predetermined fashion, microcomputer, 205, instructs signal processor, 200, to hold examples of the sought for unique signals in its buffer/ comparator, 8, and compare them with all incoming signals. Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcomputer, 205. In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information
processing said data at said computer and selecting a plurality of subscriber data;	For example column 18 lines 60-67 with	Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcomputer, 205. In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information
	Column 19 lines 35-41	Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may

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		receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio.
storing said selected plurality of subscriber data at said memory location;	For example column 18 lines 66-67 with	converter box, 222, to the proper channel, and microcomputer, 200, may record the information
	Column 19 lines 39-41	Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio.
receiving mass medium programming from a programming source and outputting said mass medium programming at said output device	For example column 19 lines 27-29	microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week." As defined in the "Webster's New Collegiate Dictionary" (copyrighted 1977 by G. & C. Merriam Co., Springfield, Mass.) mass medium is "a medium of communication (as newspapers, radio, or television) that is designed to reach the mass of the people."
selecting said at least one [stored] subscriber datum to output based on said step of storing	For example column 19 lines 59-60 and	The host then says, "Here is what the broader NASDAQ index did in the week past," and a studio generated graphic overlay is displayed on top of the first graphic. Then the host says, "And here is what your portfolio did."
	Column 19 line 64 to column 20 line 1	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic,
	With column 18 lines 47-48	microprocessor, 205, is programed to hold a portfolio of stocks and to receive news about these particular stocks and about the industries they are in.
	And column 19 lines 39-41	It records those prices that relate to the stocks in its stored portfolio.
outputting at least one of a	Column 19 line 67 to column 20 line 2	The viewer then sees a microcomputer generated graphic of his own stocks'

simultaneous presentation and a sequential presentation of said mass medium programming and said selected at least one stored subscriber datum		performance overlay the studio generated graphic.

b.   Claim 4

Claim Language	Spec. Reference	Specification Language
programming said receiver station to:	Column 18 lines 47-48	microprocessor, 205, is programed to hold a portfolio of stocks and to receive news about these particular stocks and about the industries they are in.
(1) process one of a broadcast transmission and a cablecast transmission;	Column 18 lines 59-60 With column 6 lines 23-26	its buffer/ comparator, 8, and compare them with all incoming signals. A signal processor apparatus for simultaneous usewith a cablecast input that conveys both television and radio programing and a broadcast television input is shown in Figure 1.
(2) select a first datum of interest communicated in said one of said broadcast transmission and said cablecast transmission; and	Column 18 lines 64-66	In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel
(3) store said selected first datum at said memory location.	Column 18 lines 66-67	microcomputer, 200, may record the information in memory or transfer it to printer, 221, for printing.

c.   Claim 5

Claim Language	Spec. Reference	Specification Language
inputting a subscriber command at said receiver station; and	For example column 19 lines 23-24 Or column 19 lines 27-29	Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
detecting at said receiver station said command communicated from the remote station.	Column 19 lines 64-66	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202

d.   Claim 7

Claim Language	Spec. Reference	Specification Language
programming said	Column 18 lines 47-48	microprocessor, 205, is programed to hold a

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| receiver station to process said first instruct signal communicated from said programming source that communicates said mass medium programming. | Or column 19 lines 42-53 | portfolio of stocks and to receive news about these particular stocks and about the industries they are in.

Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission. When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit these overlays to TV set, 202, upon command. |

e.   Claim 8

Claim Language	Spec. Reference	Specification Language
processing [said data transmission at said computer and selecting said plurality of subscriber data], selecting [said at least one stored subscriber datum to output], and outputting [said at least one of said simultaneous presentation and said sequential presentation of said mass medium programming and said selected at least one stored subscriber datum,] is _performed_ in response to a second instruct signal communicated from said programming source, said method further comprising the step of	Column 19 lines 35-46 (with column 18 line 59 to column 19 line 4) And column 19 line 64 to column 20 line 2	Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio. Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission. When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
programming said receiver station to one of locate and identify said second instruct signal which is effective to control said computer in said information transmission communicated from said mass medium programming source	Column 9 lines 47-57	The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency. The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval. This will define the timing of the composite

		outputs of the digital detectors, 34, 37, and 38 in Figure 2A, and 43 in Figure 2B.
	And column 4 lines 36-46	In addition, the pattern of the composition, timing, and location of the signals may vary in such ways that only receiving apparatus that are preinformed regarding the patterns that obtain at any given time will be able to process the signals correctly. Both the arrangement of signal units in signal words and the locations, timings, and lengths of signal words in individual transmissions or groups of transmissions may vary in fashions that can only be interpreted accurately by apparatus that are preprogramed with the keys to such variations.
	With column 18 lines 59-62	its buffer/ comparator, 8, and compare them with all incoming signals. Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel
	And column 17 line 62 to column 18 line 4	They might include forecast data. Signal processor, 200, is always operating and monitors all incoming channels. It can convey such signals to microcomputer, 205, whenever it receives them. TV signal decoder, 203, can also identify such signals but only in the one TV channel transferred by box, 201, to TV set, 202, and then only when TV set, 202, is on and operating. Decoder, 203, transfers all received signals to processor or monitor, 204, which identifies the signals as addressed to microcomputer, 205, and transfers them to microcomputer, 205.

f.   Claim 10

Claim Language	Spec. Reference	Specification Language
generating [and storing] at least one subscriber [data] datum to serve as a source of [said stored subscriber data] at least one subscriber datum to select and output.	Column 19 lines 48-53	These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit these overlays to TV set, 202, upon command.

g.   Claim 12

Claim Language	Spec. Reference	Specification Language
outputting said selected stored datum in one of said series of images;	Column 19 line 67 to column 20 line 7	The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic. When the two studio

and		generated graphics are no longer displayed, the studio stops sending the instruction signal, and the microcomputer, 205, ceases transmitting its own graphic to TV set, 202, and prepares to send the next locally generated graphic overlay upon instruction from the originating studio.
outputting said selected stored datum in response to a second instruct signal.	Column 19 line 64 to column 20 line 1	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.

h.   Claim 13

As it is today, "Wall Street Week" was in 1981 a well known Public Broadcasting System program that originated in Owings Mills, Maryland and was rebroadcast all over the United States. The "television studio originating ['Wall Street Week']" is disclosed at col. 19 lines 61-62. As an "[illustration of] one instance of ... the use of Signal Processing Apparatus and Methods ... a cable television system ... that cablecasts several channels of television programming" is disclosed at col. 10 lines 24-28. Among the "programming being cablecast on the multi-channel system ... 'Wall Street Week' is being televised on channel X." (col. 19 lines 14-23)

Like "Wall Street Week", the programming of Julia Child, including "The French Chef," was in 1981 well known Public Broadcasting System television programming. "Julia Childs's "The French Chef" is one such program" is disclosed at col. 20 lines 19-20.

Claim Language	Spec. Reference	Specification Language
receiving at a transmitter station said downloadable code which is effective at at least one of said plurality of receiver stations to select said at least one subscriber datum for at least one of simultaneous presentation and a sequential presentation of said at least one	Column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
	Column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
	With column 19 lines 42-44	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.

subscriber datum with mass medium programming, wherein said downloadable code has a target processor to process data at each of said plurality of receiver stations	With respect to column 19 line 45 to column 20 line 2	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit these overlays to TV set, 202, upon command. Subsequently in the program, the host says, "Here is what the Dow Jones Industrials did is the past week," and a studio generated graphic is pictured. The host then says, "Here is what the broader NASDAQ index did in the week past," and a studio generated graphic overlay is displayed on top of the first graphic. Then the host says, "And here is what your portfolio did." At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
transferring said downloadable code from said transmitter station to a transmitter	Column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
	Column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
receiving said at least one control signal at said transmitter station, said at least one control signal operating to execute said downloadable code	Column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
	Column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.

	With column 19 line 63 to column 20 line 2	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
	With respect to column 19 lines 48-53	These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit these overlays to TV set, 202, upon command.
transferring said at least one control signal from said transmitter station to said transmitter and transmitting an information transmission including said downloadable code and said at least one control signal	Column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
	Column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.

i.   Claim 17

Claim Language	Spec. Reference	Specification Language
identifying at least one of: (a) said resource to select for at least one of simultaneous presentation and sequential presentation with mass medium programming	For example column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	with respect to column 19 lines 14-15	pass all program and channel identifiers on all programing being cablecast on the multi-channel system.
(b) said control signal which is effective to select said at least one subscriber datum for said at least one of simultaneous presentation and sequential presentation with said mass medium programming	For example column 19 line 63 to column 20 line 2	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
monitoring said identified at least one of	Column 18 lines 30-42	Figure 6B also shows signal processor, 200, monitoring for a data gathering and ratings

said resource and said control signal		service. TV signal decoder, 203, and radio signal decoder, 211, also identify certain signals that monitors or processors, 204 and 210 respectively, determine to identify the programs, etc. on the channels to which TV set, 202, and radio, 209, are tuned, The processors, 204 and 210, transfer this information to signal processor, 200, for recording and subsequent transmission to a remotedata collection site. Simultaneously, processor, 200, is also monitoring sequentially all other broadcast transmissions in the locality to gather further data on programing availability to record and transmit to a remote site.
storing a record of the use of said at least one of said resource and said control signal from said step of monitoring	Column 18 lines 36-38	transfer this information to signal processor, 200, for recording and subsequent transmission to a remotedata collection site.
communicating information evidencing said use of said identified at least one of said resource and said control signal from said step of storing from said receiver station to the remote station	Column 18 lines 36-38 and column 20 lines 55-57	transfer this information to signal processor, 200, for recording and subsequent transmission to a remotedata collection site. Subsequently, when signal processor, 200, transfers the data in its data recorder, 16, via telephone to a remote site,

j.   Claim 19

Claim Language	Spec. Reference	Specification Language
receiving at said at least one origination transmitter station said mass medium programming to be transmitted by the remote intermediate mass medium programming transmitter station and delivering said mass medium programming to at least one origination transmitter, said mass medium programming having an instruct signal which is effective at said at least one receiver station to select said at least one subscriber datum for at least one of simultaneous presentation and sequential presentation with said mass medium	column 19 line 60 to column 20 line 2	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.

programming		
receiving said at least one control signal which at the remote intermediate mass medium programming transmitter station operates to control the communication of said mass medium programming	column 11 lines 38-57	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78. If incoming programing is meant for immediate transmission, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer incoming programing to the proper output channel. For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
transmitting said at least one control signal from said at least one origination transmitter before a specific time	column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
	and column 19 lines 42-44	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.
	with column 11 lines 38-39	By comparing identification signals on the incoming programing with the programing schedule
	with respect to column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.

k.   Claim 20

Claim Language	Spec. Reference	Specification Language
embedding a specific one of said at least one control signal in said mass medium programming before	column 11 lines 38-39	By comparing identification signals on the incoming programing with the programing schedule
	with column 9 lines 31-	Figure 6C can also illustrate how programing

transmitting said mass medium programming to said remote intermediate mass medium	33	delivered at different times to one place can be co-ordinated to give a multimedia presentation at one time in one place.
programming transmitter station	and column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.

l.   Claim 21

Claim Language	Spec. Reference	Specification Language
transmitting a schedule which operates at the remote intermediate mass medium programming transmitter station to communicate said mass medium programming to a first transmitter at said specific time	column 11 lines 39-57	incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78. If incoming programing is meant for immediate transmission, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer incoming programing to the proper output channel. For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator,
	with column 11 lines 21-22	Such input information might include the cable television system's complete programing schedule
	and column 11 lines 28-31	Such input information might also indicate when and on which channel or channels the head end facility should transmit each program unit to cable field distribution system, 93.

m.   Claim 22

Claim Language	Spec. Reference	Specification Language
receiving at least one of a code and a datum at a transmitter station, said at least one of said code	column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
and said datum designating at least one of:	and column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as

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		to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
(a) a product and a service offered in said mass medium programming	column 18 line 59 to column 19 line 4	its buffer/ comparator, 8, and compare them with all incoming signals. Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcomputer, 205. In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information in memory or transfer it to printer, 221, for printing. In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.
(b) said subscriber reaction	column 19 lines 13-29	Microcomputer, 205, instructs signal processor, 200, to pass all program and channel identifiers on all programing being cablecast on the multi-channel system. Signal processor, 200, receives this instruction from microcomputer, 205, at its processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
receiving at said transmitter station an instruct signal which is effective at said at least one of said plurality of receiver stations to select said at least one subscriber datum for at least one of simultaneous presentation and sequential presentation with said mass medium programming	column 19 line 60 to column 20 line 2	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
	column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs

		matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
transferring at least one of said at least one of said code and said datum and said instruct signal to a transmitter at said transmitter station at a specific time	column 19 lines 60-63 column 11 lines 50-57	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
transmitting said at least one of said at least one of said code and said datum and said instruct signal from said transmitter station	column 19 lines 60-63 column 11 lines 50-57 with column 19 lines 63-67	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204.

n.   Claim 25

Claim Language	Spec. Reference	Specification Language
communicating to said transmitter	column 19 lines 60-63 column 11 lines 54-57	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator
transmitting said control signal which is effective at said at least one of said plurality of receiver stations to at least one of:	column 19 lines 60-63 column 11 lines 50-57	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. For example, if controller/computer, 73, determines that programing incoming via

		receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
(a) output at least one of supplemental video, supplemental audio, and supplemental text	column 18 line 59 to column 19 line 4	its buffer/ comparator, 8, and compare them with all incoming signals. Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcomputer, 205. In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information in memory or transfer it to printer, 221, for printing. In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.
(b) process said subscriber reaction	column 19 lines 14-53	pass all program and channel identifiers on all programing being cablecast on the multi-channel system. Signal processor, 200, receives this instruction from microcomputer, 205, at its processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."Co-ordinating Multimedia Presentations in Time Figure 6C can also illustrate how programing delivered at different times to one place can be co-ordinated to give a multimedia presentation at one time in one place. Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio. Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission. When the "Wall Street

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		Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit these overlays to TV set, 202, upon command.

o.   Claim 27

Claim Language	Spec. Reference	Specification Language
receiving at one of a broadcast transmitter station and a cablecast transmitter station at least one instruct signal which is effective at said at least one of said plurality of receiver stations to select said at least one subscriber datum for at least one of simultaneous presentation and sequential presentation with mass medium programming	column 19 line 60 to column 20 line 2	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
	column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
transferring said at least one instruct signal from said one of said broadcast transmitter station and said cablecast transmitter station to a transmitter	column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
	column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
receiving at least one control signal at said one of said broadcast transmitter station and said cablecast transmitter station, wherein said at least control signal	column 19 lines 60-67	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as

identifies at least one specific receiver station device to which said at least one instruct signal is addressed		long as it receives the same instruction signal from processor, 204.
	column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
	with column 17 lines 39-45	Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions, identify and discriminate among one or more pieces of external equipment to which such signals are addressed, and transfer such signals to such equipment as directed.
	and column 18 lines 1-4	Decoder, 203, transfers all received signals to processor or monitor, 204, which identifies the signals as addressed to microcomputer, 205, and transfers them to microcomputer, 205.
transferring said at least one control signal from said one of said broadcast transmitter station and said cablecast transmitter station to said transmitter, said one of said broadcast transmitter station and said cablecast transmitter station one of broadcasting and cablecasting said at least one instruct signal and said at least one control signal to said at least one of said plurality of receiver stations	column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
	column 11 lines 54-57	cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87

p.   Claim 30

Claim Language	Spec. Reference	Specification Language
wherein a switch communicates signals selectively from a first receiver and at least one of a memory and a recorder to a first transmitter	column 11 lines 38-46	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. Controller/computer, 73, has means for communicating control information with matrix

		switch, 75, and video recorder/players, 76 and 78.
	column 11 lines 50-51	For example, if controller/computer, 73, determines that programing
	column 10 lines 48-52	Programing can also be manually delivered to the facility on prerecorded video tapes and videodiscs. When played on video recorder and players, 76 and 78, or other similar equipment well known in the art, such prerecorded programing can be transmitted to the field.
detecting a first signal which is effective at a first transmitter station to instruct communication	column 11 lines 3-8	Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to code reader, 72.
	column 9 lines 34-40	Each path is capable of receiving a transmission or a portion of a transmission and detecting digital signals in that portion and transmitting said signals to in-line equipment for further processing. Each of the paths described in Figures 2A, 2B, and 2C can identify and process only signals embedded in the particular transmission channel inputted to said paths.
	column 11 lines 38-57	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. 　　　Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78. If incoming programing is meant for immediate transmission, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer incoming programing to the proper output channel. For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
determining a specific signal source from which to communicate a second signal to said first transmitter	column 11 lines 50-52	For example, if controller/computer, 73, determines that programing
controlling said switch to	column 11 lines 50-57	For example, if controller/computer, 73,

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communicate said second signal to said first transmitter in response to said first signal which is effective at said first transmitter station to instruct communication		determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
	with respect to column 11 lines 38-43	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.
controlling said switch to communicate said second signal from said specific signal source	column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
controlling said switch to communicate to said at least one of said memory and said recorder a third signal which is effective at said at least one of said plurality of receiver stations to instruct	column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
	with respect to column 19 lines 42-49	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission. When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205.

q. Claim 31

Claim Language	Spec. Reference	Specification Language
detecting a first signal which is effective at a first transmitter station to instruct transmission	column 11 lines 3-7	Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal
	column 19 lines 35-37	Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information

		channel, all closing stock prices applicable that day.
	column 11 lines 38-43	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing
	column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
inputting to said controller a second signal which is effective to control said switch	column 11 lines 12-14	Code reader, 72, passes the received signals, with channel identifiers, to cable program controller and computer, 73.
	column 11 lines 21-25	Such input information might include the cable television system's complete programing schedule, with each discrete unit of programing identified with a unique program code (which in the case of advertising might be a purchase order number).
	for example column 11 lines 38-46	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.
	and column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
controlling said switch to communicate at least one signal according to a transmission schedule	column 11 lines 38-46	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and

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		on what channel or channels the head end facility should transmit the programing. Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.
	column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
controlling said switch to communicate from a specific one of a plurality of signal sources	column 11 lines 54-57	cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator
	with column 10 line 30-39	The facility receives programing from many sources. Transmissions may be received from satellites by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions can be received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions can be received by antenna, 60, and TV demodulator, 61. Other electronic programing input means, 62, can receive programing transmissions
controlling said switch to communicate a third signal to a selected one of a plurality of transmitters	column 11 lines 54-57	cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator
	with column 10 lines 46-47	here cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
	and with respect to column 1 lines 12-14	Code reader, 72, passes the received signals, with channel identifiers, to cable program controller and computer, 73.
	and column 11 lines 21-24	Such input information might include the cable television system's complete programing schedule, with each discrete unit of programing identified with a unique program code (which in the case of

r.   Claim 32

Claim Language	Spec. Reference	Specification Language
transmitting to said at	column 11 lines 50-57	For example, if controller/computer, 73,

least one of said plurality of receiver stations at least one of data that:		determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
	with column 11 lines 38-39	By comparing identification signals on the incoming programing with the programing schedule
	for example column 4 lines 5-13	These techniques employ signals embedded in programs. The advantage of such embedded signals, as compared to header and trailer signals, is that they cannot become separated inadvertantly from the programing and, thereby, inhibit automatic processing, that they can convey signals to equipment that must switch manners or modes of operation during transmissions of individual units of programing, and that they can be monitored.
(a) designate at least one of a time of transmission and a channel of transmission of said at least one instruct signal	column 19 lines 14-15	pass all program and channel identifiers on all programing being cablecast on the multi-channel system.
(b) specify and a subject matter contained in one of said mass medium programming and said data associated with said at least one instruct signal	column 18 line 53-56	The news services preceed each news transmission with a unique signal that uniquely identifies the company or companies to which the news item refers and/or the industries.
transmitting to said at least one of said plurality of receiver stations a first control signal to cause said at least one of said plurality of receiver stations to tune to one of a broadcast transmission and a cablecast transmission containing a specific instruct signal	column 19 lines 14-15	pass all program and channel identifiers on all programing being cablecast on the multi-channel system
	with column 19 lines 21-25	signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system
	and column 19 lines 42-49	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission. When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video

s.   Claim 33

Claim Language	Spec. Reference	Specification Language
wherein said at least one control signal includes downloadable code targeted to said at least	column 19 lines 14-15	pass all program and channel identifiers on all programing being cablecast on the multi-channel system
one processor at said at least one of said plurality of receiver stations, said downloadable code programming a way in which said at least one processor responds to	with column 19 lines 21-25	signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system
said at least one instruct signal.	and column 16 lines 57-61	fashion, create a signal string by appending digital information to the received signal which information might identify the individual decoder, 131, 136, 138, 143, 145, 147, 149, or 150 and the time of receipt at signal processor, 130.

t.   Claim 34

Claim Language	Spec. Reference	Specification Language
causing at least a portion of one of said at least one control signal and said at least one instruct	column 19 lines 60-63	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
signal to be transmitted in said location of said first signal in said information transmission	or column 11 lines 50-57	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
	with column 19 lines 42-44	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission
	for example column 4 lines 41-46	Both the arrangement of signal units in signal words and the locations, timings, and lengths of signal words in individual transmissions or groups of transmissions may vary in fashions that can only be interpreted accurately by apparatus that are preprogramed with the keys to such variations.

u.   Claim 35

Claim Language	Spec. Reference	Specification Language

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an interactive television viewing apparatus capable of storing at least one subscriber datum with independent interactive television viewing apparatus specific relevance	column 18 lines 47-48	microprocessor, 205, is programed to hold a portfolio of stocks and to receive news
displaying television programming that promotes mass medium programming, said interactive television viewing apparatus having an input device to receive input from a subscriber	column 20 lines 16-24	Suppose a viewer watches a television program on cooking techniques that is received on TV set, 202, via box, 201. Julia Childs's "The French Chef" is one such program. Halfway through the program, the host says, "If you are interested in cooking what we are preparing here and want a printed copy of the recipe for a charge of only 10 cents, press 567 on your Widget Signal Generator and Local Input." The viewer then presses buttons 567 on local input, 225
prompting said subscriber during said television programming whether said subscriber wants said mass medium programming promoted in said step of displaying, said interactive television viewing apparatus having a memory for storing at least one of a code and a datum	column 20 lines 19-24	Halfway through the program, the host says, "If you are interested in cooking what we are preparing here and want a printed copy of the recipe for a charge of only 10 cents, press 567 on your Widget Signal Generator and Local Input." The viewer then presses buttons 567 on local input, 225
receiving a reply from said subscriber at said input device in response to said step of prompting said subscriber, said interactive television viewing apparatus having a processor for processing said subscriber reply	column 20 lines 23-28	The viewer then presses buttons 567 on local input, 225, which signal is conveyed to the buffer/comparator, 8 (referring to Fig. 1), of signal processor, 200, to hold and process further in a predetermined fashion. Five minutes later, a signal is identified in the incoming programing on TV set
processing said reply from said step of receiving said reply and selecting at least a portion of said at least one of said code and said datum designating said mass medium programming, said interactive television viewing apparatus having a transmitter for communicating information to a remote station	column 20 lines 23-34 column 20 lines 43-47,	The viewer then presses buttons 567 on local input, 225, which signal is conveyed to the buffer/comparator, 8 (referring to Fig. 1), of signal processor, 200, to hold and process further in a predetermined fashion. Five minutes later, a signal is identified in the incoming programing on TV set, 202, by decoder, 203, which is also transferred by processor, 204, to buffer/comparator, 8, of signal processor, 200. This signal instructs buffer/comparator, 8, that, if 567 has been received from signal generator, 225, signal processor, 200, should, in a predetermined fashion, instruct tuner, 223, to tune cable converter Then, as part of the predetermined operation,

		signal processor, 200, conveys to its data recorder, 16, information that the 567 order was placed by the viewer and all necessary equipment was enabled.
	column 20 lines 50-55	Other signal decoder, 227, identifies a signal in the transmission received by printer, 221, which it passes via processor, 228, and buffer/comparator, 14, of signal processor, 200, to data recorder, 16. This signal indicates that the recipe, itself, has been received
	for example column 15 lines 57-59	The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each
communicating said selected at least a portion of said code and said datum to said remote site, said interactive mass medium output apparatus and said remote site including a network having a plurality of transmitter stations	column 20 lines 55-57	Subsequently, when signal processor, 200, transfers the data in its data recorder, 16, via telephone to a remote site
assembling, in said network, at least a first signal which is effective at said interactive television viewing apparatus to deliver said at least one subscriber datum for at least one of simultaneous presentation and sequential presentation with said mass medium programming, said interactive television viewing apparatus having a receiver for receiving said first signal from said remote station	column 7 lines 36-39,	Buffer/comparator, 8, organizes the data stream that it receives according to a pre-determined fashion that enables buffer/comparator, 8, among other things, to assemble signal units from signal words.
	column 8 lines 32-37,	The controller, 20, can instruct signal decoders, 30 and 40, when, where, and how to look for signal words, which allows signal words to be received in any pattern or patterns. It can instruct buffer/ comparator, 8, how to assemble signal words into signal units and join units together for further transfer
	column 2 line 64 to column 3 line 8,	(The term "signal unit" hereinafter means one complete signal instruction or information message unit. Examples of signal units are a unique code identifying a programing unit, or a unique purchase order number identifying the proper use of a programing unit, or a general instruction identifying whether a programing unit is to be retransmitted immediately or recorded for delayed transmission. The term "signal word" hereinafter means one full discrete appearance of a signal as embedded at one time in one location on a transmission. Examples of signal words are a string of one or more digital data bits encoded together on a single line of video or sequentially in audio.
	column 3 line 48 to	Another method has application at receiver sites

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	column 4 line 4	such as private homes or public places like theaters, hotels, brokerage offices, etc., whether commercial establishments or not. This method provides techniques whereby, automatically, single channel, single medium presentations, be they television, radio, or other electronic transmissions, may be recorded, co-ordinated in time with other programing previously transmitted and recorded, or processed in other fashions. Multimedia presentations may be co-ordinated in time and/or in place as, for example, when real-time video programing is co-ordinated with presentations from a microcomputer working with data supplied earlier. This method provides techniques whereby the timing and fashion of the playing, processing, and co-ordination of a presentation or presentations may be determined at the time and place of transmission or of presentation, either in whole or in part, either locally or remotely, or a combination of these factors. The method provides monitoring techniques to develop data on patterns of viewership and to permit the detemination of specific usage at individual receiving sites for various purposes including, for example, the billing of individual customers. The method provides techniques whereby unauthorized use of programing and/or of signals may be prevented.
delivering said at least said first signal at said interactive television viewing apparatus	column 18 lines 61-66	When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcomputer, 205. In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel
	or column 19 lines 14-25	Microcomputer, 205, instructs signal processor, 200, to pass all program and channel identifiers on all programing being cablecast on the multi-channel system. Signal processor, 200, receives this instruction from microcomputer, 205, at its processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system
outputting said at least one subscriber datum in at least one of a simultaneous presentation and a sequential presentation	column 19 line 67 to column 20 line 10	The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic. When the two studio generated graphics are no longer displayed, the studio stops sending the instruction signal, and the microcomputer, 205, ceases transmitting its own

with said mass medium programming on the basis of said at least said first signal		graphic to TV set, 202, and prepares to send the next locally generated graphic overlay upon instruction from the originating studio. This is only one of many examples of the co-ordination at one time and in one place of programing and information material delivered at different times.

v.   Claim 36

Claim Language	Spec. Reference	Specification Language
wherein at least a portion of said first signal is embedded in the non-visible portion of a television signal	column 4 lines 5-13	These techniques employ signals embedded in programs. The advantage of such embedded signals, as compared to header and trailer signals, is that they cannot become separated inadvertantly from the programing and, thereby, inhibit automatic processing, that they can convey signals to equipment that must switch manners or modes of operation during transmissions of individual units of programing, and that they can be monitored.
	and column 4 lines 20-22	portion of one line, or on more than one line, and will probably lie outside the range of the television picture displayed on a normally tuned television set.

w.   Claim 37 & 41

Claim Language	Spec. Reference	Specification Language
selecting evidence information that one of identifies and designates	column 18 lines 30-38,	TV signal decoder, 203, and radio signal decoder, 211, also identify certain signals that monitors or processors, 204 and 210 respectively, determine to identify the programs, etc. on the channels to which TV set, 202, and radio, 209, are tuned, The processors, 204 and 210, transfer this information to signal processor, 200, for recording and subsequent transmission to a remote data collection site
	or column 20 lines 43-47	Then, as part of the predetermined operation, signal processor, 200, conveys to its data recorder, 16, information that the 567 order was placed by the viewer and all necessary equipment was enabled.
	and column 20 lines 50-59	Other signal decoder, 227, identifies a signal in the transmission received by printer, 221, which it passes via processor, 228, and buffer/comparator, 14, of signal processor, 200, to data recorder, 16. This signal indicates that the recipe, itself, has been received. Subsequently, when signal processor, 200, transfers the data in its data recorder, 16, via telephone to a remote site, that site can determine for billing purposes that the

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| | | recipe was, first, ordered and, second, delivered |
| | and column 15 line 57 to column 16 line 2 | The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable systems, and possibly times of transmission. They may convey unique identifier codes for each program or commercial. In the case of data transmitted to the micro- computer, they may be unique codes that identify the source and suppliers of the data. In the case of data received at the printer, they may identify publications, articles, publishers, distributors, advertisements, etc. The decoders, 31, 136, 138, 143, 145, 147, 149, and 150, may search for many types of codes, and the types described here provide only examples. |

x.   Claim 38

Claim Language	Spec. Reference	Specification Language
receiving a second signal containing said mass medium programming	column 20 lines 34-37	fashion, instruct tuner, 223, to tune cable converter box, 222, to the appropriate channel to receive the recipe in encoded digital form and instruct control means, 226, to activate printer, 221.
actuating at least one of a video storage or output device, an audio storage or output device, and a print storage or output device to one of store and output said mass medium programming	column 18 line 63 to column 19 line 4	In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information in memory or transfer it to printer, 221, for printing. In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.
decrypting at least a portion of said mass medium programming	column 20 lines 37-43	The signal transmission from processor, 204, also passes a signal word to signal processor, 200, which, in a predetermined fashion, signal processor, 200, decrypts and transfers to decrypter, 224, to serve as the code upon which decrypter, 224, will decrypt the incoming encrypted recipe.
controlling a selective transfer device to communicate said mass medium programming to at least one of a storage device and an output device	column 18 line 64 to column 19 line 4	In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information in memory or transfer it to printer, 221, for printing. In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.
generating a receiver	column 19 lines 45-49	When the "Wall Street Week" transmission

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specific datum to on the basis of information contained in said mass medium programming		begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205
	with column 19 line 67 to column 20 line 1	The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
delivering a receiver specific datum at said interactive television viewing apparatus at least one of simultaneously and sequentially with said mass medium programming	column 19 line 59 to column 20 line 7	The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic. When the two studio generated graphics are no longer displayed, the studio stops sending the instruction signal, and the microcomputer, 205, ceases transmitting its own graphic to TV set, 202, and prepares to send the next locally generated graphic overlay upon instruction from the originating studio.

y.   Claim 39

Claim Language	Spec. Reference	Specification Language
[displaying] outputting mass medium programming that promotes a specific fashion of presenting information to one of complete and supplement said mass medium programming, said interactive mass medium programming output apparatus having an input device to receive input from a subscriber	column 20 lines 16-24	Suppose a viewer watches a television program on cooking techniques that is received on TV set, 202, via box, 201. Julia Childs's "The French Chef" is one such program. Halfway through the program, the host says, "If you are interested in cooking what we are preparing here and want a printed copy of the recipe for a charge of only 10 cents, press 567 on your Widget Signal Generator and Local Input." The viewer then presses buttons 567 on local input, 225
	with column 3 line 51 to column 4 line 4	This method provides techniques whereby, automatically, single channel, single medium presentations, be they television, radio, or other electronic transmissions, may be recorded, co-ordinated in time with other programing previously transmitted and recorded, or processed in other fashions. Multimedia presentations may be co-ordinated in time and/or in place as, for example, when real-time video programing is co-ordinated with presentations from a microcomputer working with data supplied earlier. This method provides techniques whereby the timing and fashion of the playing, processing, and co-ordination of a presentation or presentations may be determined at the time and place of transmission or of presentation, either in whole or in part, either locally or remotely, or a combination of these factors. The method provides monitoring techniques to develop data on patterns of viewership and to permit the detemination of specific usage at individual receiving sites for various purposes including, for example, the billing of individual customers. The method provides techniques whereby unauthorized use of programing and/or of signals

		may be prevented.
prompting said subscriber during said mass medium programming whether said subscriber wants said information to one of complete and supplement said mass medium programming presented in said specific fashion promoted in said step of displaying, said interactive mass medium programming output apparatus having an output device for outputting information in said specific fashion	column 20 lines 20-24	"If you are interested in cooking what we are preparing here and want a printed copy of the recipe for a charge of only 10 cents, press 567 on your Widget Signal Generator and Local Input." The viewer then presses buttons 567 on local input, 225
receiving a reply from said subscriber at said input device in response to said step of prompting said subscriber, said interactive mass medium programming output apparatus having a processor for processing said subscriber reply and controlling delivery of said mass medium programming in response to instructions	column 20 lines 23-28	The viewer then presses buttons 567 on local input, 225, which signal is conveyed to the buffer/comparator, 8 (referring to Fig. 1), of signal processor, 200, to hold and process further in a predetermined fashion. Five minutes later, a signal is identified in the incoming programing on TV set
delivering said instructions at said interactive mass medium programming output apparatus in response to said step of receiving said reply, said instructions controlling said interactive mass medium programming output apparatus	column 20 lines 27-43	Five minutes later, a signal is identified in the incoming programing on TV set, 202, by decoder, 203, which is also transferred by processor, 204, to buffer/comparator, 8, of signal processor, 200. This signal instructs buffer/comparator, 8, that, if 567 has been received from signal generator, 225, signal processor, 200, should, in a predetermined fashion, instruct tuner, 223, to tune cable converter box, 222, to the appropriate channel to receive the recipe in encoded digital form and instruct control means, 226, to activate printer, 221. The signal transmission from processor, 204, also passes a signal word to signal processor, 200, which, in a predetermined fashion, signal processor, 200, decrypts and transfers to decrypter, 224, to serve as the code upon which decrypter, 224, will decrypt the incoming encrypted recipe.
processing said instructions from said step of delivering, said instructions effective to select said at least one subscriber datum for at	column 20 lines 27-43	Five minutes later, a signal is identified in the incoming programing on TV set, 202, by decoder, 203, which is also transferred by processor, 204, to buffer/comparator, 8, of signal processor, 200. This signal instructs buffer/comparator, 8, that, if 567 has been received from signal generator, 225,

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		signal processor, 200, should, in a predetermined fashion, instruct tuner, 223, to tune cable converter box, 222, to the appropriate channel to receive the recipe in encoded digital form and instruct control means, 226, to activate printer, 221. The signal transmission from processor, 204, also passes a signal word to signal processor, 200, which, in a predetermined fashion, signal processor, 200, decrypts and transfers to decrypter, 224, to serve as the code upon which decrypter, 224, will decrypt the incoming encrypted recipe.
least one of simultaneous presentation and sequential presentation with said mass medium programming	with column 3 lines 51-66	This method provides techniques whereby, automatically, single channel, single medium presentations, be they television, radio, or other electronic transmissions, may be recorded, co-ordinated in time with other programing previously transmitted and recorded, or processed in other fashions. Multimedia presentations may be co-ordinated in time and/or in place as, for example, when real-time video programing is co-ordinated with presentations from a microcomputer working with data supplied earlier. This method provides techniques whereby the timing and fashion of the playing, processing, and co-ordination of a presentation or presentations may be determined at the time and place of transmission or of presentation, either in whole or in part, either locally or remotely, or a combination of these factors.
presenting said information to one of complete and supplement said mass medium programming in said specific fashion on the basis of said instructions	column 19 lines 59-60	Then the host says, "And here is what your portfolio did."
	with column 19 line 67 to column 20 line 2	The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
	and column 20 lines 19-21	Halfway through the program, the host says, "If you are interested in cooking what we are preparing here and want a printed copy of the recipe for a charge
	with column 20 lines 47-50	When the transmission of the recipe is received, box 222, transfers the transmission to decrypter, 224,

z. Claim 40

Claim Language	Spec. Reference	Specification Language
wherein at least one of said instructions is embedded in at least one of the non-visible portion of a mass medium programming signal and	column 4 lines 20-25	portion of one line, or on more than one line, and will probably lie outside the range of the television picture displayed on a normally tuned television set. In television and radio they may appear in a portion of the audio range that is not normally rendered in a form audible to the human

the non-audible portion of said mass medium programming signal		ear

aa.   Claim 42

Claim Language	Spec. Reference	Specification Language
communicating said executable code to said processor	column 17 lines 39-45	Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions, identify and discriminate among one or more pieces of external equipment to which such signals are addressed, and transfer such signals to such equipment as directed.
	with column 19 lines 45-53	This permits many valuable techniques for facilitating the operation of such external equipment. Figure 6 illustrates one possible configuration of equipment in a home or office or other television and/or radio receiving site. Consideration of Figure 6 is facilitated by consideration, first, of individual examples of the types of co-ordinated presentations that the signal apparatus and methods described here can permit.
performing, on the basis of said executable code, at least one of the steps of	column 17 lines 45-47	This permits many valuable techniques for facilitating the operation of such external equipment.
	with column 17 lines 62-64	They might include forecast data. Signal processor, 200, is always operating and monitors all incoming channels
receiving a first signal containing said information to supplement said mass medium programming	column 20 lines 34-37	fashion, instruct tuner, 223, to tune cable converter box, 222, to the appropriate channel to receive the recipe in encoded digital form and instruct control means, 226, to activate printer, 221.
actuating at least one of a video output device, an audio output device, and a print output device to one of output said information to supplement said mass medium programming and output information in said specific fashion	column 18 line 63 to column 19 line 4	In a predetermined fashion, either microcomputer, 205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information in memory or transfer it to printer, 221, for printing. In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.
decrypting at least a portion of said information to supplement said mass medium programming	column 20 lines 37-43	The signal transmission from processor, 204, also passes a signal word to signal processor, 200, which, in a predetermined fashion, signal processor, 200, decrypts and transfers to decrypter, 224, to serve as the code upon which decrypter, 224, will decrypt the incoming encrypted recipe.
controlling a selective	column 18 line 64 to	In a predetermined fashion, either microcomputer,

transfer device to communicate specific output to a specific output device	column 19 line 4	205, or signal processor, 200, instructs tuner, 223, to set cable converter box, 222, to the proper channel, and microcomputer, 200, may record the information in memory or transfer it to printer, 221, for printing. In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.
generating a receiver specific datum to present with at least one of said mass medium programming and said information to supplement said mass medium programming	column 19 lines 45-49 with column 19 line 67 to column 20 line 1	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.
delivering a receiver specific datum at said interactive mass medium programming output apparatus at least one of simultaneously and sequentially with one of said mass medium programming and said information to supplement said mass medium programming	column 19 line 59 to column 20 line 7	Then the host says, "And here is what your portfolio did." At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic. When the two studio generated graphics are no longer displayed, the studio stops sending the instruction signal, and the microcomputer, 205, ceases transmitting its own graphic to TV set, 202, and prepares to send the next locally generated graphic overlay upon instruction from the originating studio.

bb.   Claim 43

Claim Language	Spec. Reference	Specification Language
detecting one of a presence and an absence of one of a broadcast control signal and a cablecast control signal	column 19 lines 5-12	In another example, microcomputer, 205 may be preinformed that a certain television program, hypothetically "Wall Street Week," should be televised on TV set, 202, when it is cablecast. Microcomputer, 205, is preinformed of the time of cablecasting. When that time comes, microcomputer, 205, receives no program identification signals whatever from TV signal decoder, 203, which indicates that the set, 202, is not on

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	and column 19 lines 43-49	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission. When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video
inputting an instruct-to-react signal to a processor based on said step of detecting	column 19 lines 12-18	decoder, 203, which indicates that the set, 202, is not on. Microcomputer, 205, instructs signal processor, 200, to pass all program and channel identifiers on all programing being cablecast on the multi-channel system. Signal processor, 200, receives this instruction from microcomputer, 205, at its processor or monitor, 12, which reacts, in a predetermined fashion by passing also
controlling said processor to output specific information in response to said instruct-to-react signal	column 19 lines 14-20	pass all program and channel identifiers on all programing being cablecast on the multi-channel system. Signal processor, 200, receives this instruction from microcomputer, 205, at its processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14.
selecting said at least one datum for at least one of simultaneous and sequential presentation with mass medium programming on the basis of information received from said processor based on said step of controlling said processor	column 19 line 65 to column 20 line 2	This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.

cc.   Claim 44

Claim Language	Spec. Reference	Specification Language
bypassing said buffer and inputting said instruct-to-react signal directly to said processor	column 19 lines 15-18	programing being cablecast on the multi-channel system. Signal processor, 200, receives this instruction from microcomputer, 205, at its processor or monitor, 12, which reacts, in a predetermined fashion by passing also
	with column 13 lines 43-47	It may be a computer acting in a predetermined fashion. The signal may be input to signal processor, 100, as described in Figure 1, at buffer/comparator, 8, or signal processor or monitor, 12, or buffer/comparator, 14.

dd. Claim 45

Claim Language	Spec. Reference	Specification Language
controlling a tuner to tune a receiver to receive said at least one of said television channel and said television programming designated by said processed datum	column 19 lines 20-25	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system
controlling a selective transfer device to input to a control signal detector at least a portion of said at least one of said television channel and said television programming designated by said processed datum	column 19 lines 20-25	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system
	with column 17 lines 65-68	It can convey such signals to microcomputer, 205, whenever it receives them. TV signal decoder, 203, can also identify such signals but only in the one TV channel transferred by box, 201, to TV set, 202, and then only when TV set, 202, is on and
[controlling] causing a control signal detector to [search for] detect at least one control signal in said at least one of said television channel and said television programming designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 27-29	Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
	with column 17 line 65 to column 18 line 4	It can convey such signals to microcomputer, 205, whenever it receives them. TV signal decoder, 203, can also identify such signals but only in the one TV channel transferred by box, 201, to TV set, 202, and then only when TV set, 202, is on and operating. Decoder, 203, transfers all received signals to processor or monitor, 204, which identifies the signals as addressed to microcomputer, 205, and transfers them to microcomputer, 205.
	and column 18 lines 14-16	TV signal decoder, 203, detects signals in the programing transmission on the channel which signals it transfers to monitor
controlling a selective transfer device to input to a computer control signals detected in said at least one of said television channel and said television programming designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 27-29	Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."

	with column 19 lines 45-49	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video
controlling a computer to respond to control signals detected in said at least one of said television channel and said television programming designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 64-68	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic
	with column 19 lines 45-53	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit these overlays to TV set, 202, upon command.
controlling a television monitor to display at least one of video and audio contained in said at least one of said television channel and said television programming designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 27-29	"Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
controlling a video recorder to one of record and play one of video and audio contained in said at least one of said television channel and said television programming designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 25-27	box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
controlling a selective transfer device to communicate to at least one of a video recorder and a television monitor said at least one of said television channel and	column 19 lines 20-29	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video

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said television programming designated by said processed datum		recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."

ee.   Claim 46

Claim Language	Spec. Reference	Specification Language
controlling a tuner to tune a converter to receive said at least one specific channel designated by said processed datum	column 19 lines 20-25	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system
controlling a selective transfer device to input to a control signal detector at least a portion of said at least one specific channel designated by said processed datum	column 19 lines 20-25	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system
	with column 17 lines 65-68	TV signal decoder, 203, can also identify such signals but only in the one TV channel transferred by box, 201, to TV set, 202, and then only when TV set, 202, is on
[controlling] causing a control signal detector to [search for] detect at least one control signal in said at least one specific channel designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 27-29	"Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
	with column 17 line 65 to column 18 line 4	It can convey such signals to microcomputer, 205, whenever it receives them. TV signal decoder, 203, can also identify such signals but only in the one TV channel transferred by box, 201, to TV set, 202, and then only when TV set, 202, is on and operating. Decoder, 203, transfers all received signals to processor or monitor, 204, which identifies the signals as addressed to microcomputer, 205, and transfers them to microcomputer, 205.
	and column 18 lines 14-16	TV signal decoder, 203, detects signals in the programing transmission on the channel which signals it transfers to monitor
controlling a selective transfer device to input to a computer control signals detected in said at least one specific	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.

channel designated by said processed datum	and column 19 lines 27-29	"Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
	and column 19 lines 45-49	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video
controlling a computer to respond to control signals detected in said at least one specific channel designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 63-68	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic
	with column 19 lines 45-53	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit these overlays to TV set, 202, upon command
controlling a television monitor to display at least one of video and audio contained in said at least one specific channel designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 27-29	"Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
controlling a video recorder to one of record and play one of video and audio contained in said at least one specific channel designated by said processed datum	column 19 lines 20-23	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	and column 19 lines 24-27	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."
controlling a selective transfer device to	column 19 lines 20-29	Analyzing these identifier signals in a predetermined fashion, microcomputer, 205,

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communicate to at least one of a storage device and an output device said at least one specific channel designated by said processed datum		determines that "Wall Street Week" is being televised on channel X. Then, in a predetermined fashion, microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."

2.   Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 17, 19, 22, 27, and 43 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

Regarding claims 17 and 43, Applicants clearly claim, " said receiver station having ... at least one **stored** subscriber datum with independent receiver specific relevance..." Applicants submit that the recitation of having a stored datum at a receiver station implicitly claims that the receiver station stores the datum. Withdrawal of the rejection is respectfully requested.

3.   Conclusion

Applicants respectfully submit that the claims of the subject application particularly point out and claim the subject matter sufficiently for one of ordinary skill in the art to comprehend the bounds of the claimed invention. The test for definiteness of a claim is whether one skilled in the art would understand the bounds of the patent claim when read in light of the specification, and if the claims so read reasonably apprise those skilled in the art of the scope of the invention, no more is required. *Credle v. Bond*, 25 F.3d 1556, 30 USPQ2d 1911 (Fed. Cir. 1994). The legal standard for definiteness is whether a claim reasonably apprises those of skill in the art of its scope. *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994). Applicants have amended the claims to enhance clarity and respectfully submit that all pending claims are fully enabled by the specification and distinctly indicate the metes and bounds of the claimed subject matter.

Applicants believe that the above recited changes are sufficient to overcome the rejections under 35 U.S.C. 112, first and second paragraph, and respectfully request withdrawal of these rejections. Applicants provide these specific embodiments in support of the pending claims by way of example only. The claims must be read as broadly as is reasonable in light of the specification, and Applicants in no way intend that their submission of excerpts/examples be construed to unnecessarily restrict the scope of the claimed subject matter.

D.   Response to Rejection of Claims for Absence of Novelty

Applicants respectfully submit that the claims in the present application should be allowed because these methods are not disclosed, taught, suggested, or implied by the applied prior art. For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *Scripps Clinic & Research Foundation v. Genetech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001, 18 USPQ2d 1896 (Fed. Cir. 1991). Absence from a cited reference of any element of a claim negates anticipation of that claim by the reference. *Kloster Speedsteel AB v Crucible, Inc.*, 230 USPQ 81 (Fed. Cir. 1986), *on rehearing*, 231 USPQ 160 (Fed. Cir. 1986).

1.   35 U.S.C. § 102 (a) Rejection over Campbell '791

Claims 3-46 stand rejected under 35 U.S.C. § 102 (a) as being anticipated by Campbell '791. It is noted that Campbell '791 has a PCT equivalent application that was published in October of 1981. However, the PCT publication has not been specifically cited against Applicants' claims. The PCT date is the only date, which is valid under 35 U.S.C. § 102 (a). Therefore, Applicants submit that the rejection of claims 3-46 under 35 U.S.C. § 102 (a) as being anticipated by Campbell '791 is improper. Further, the PCT publication is not prior art under 35 U.S.C. § 102(b) because it was not available more than one year prior to the effective filing date

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of Applicants' claims. The PCT application is also not prior art under 35 U.S.C. § 102(e) because it is not an application for patent filed in the United States.

Further, the office action has made reference to paragraphs (b) and (e) preceding the 102 rejection. Therefore, Applicants maintain that the rejection based upon Campbell is improper under either 35 U.S.C. § 102(b) or 35 U.S.C. § 102(e). The claims stand rejected under 35 U.S.C. § 102 (b or e) depending on the effective filing date. As noted above, all of the claims as herein presented are supported by Application Serial No. 317,510, filed November 3, 1981, and on which the instant application claims priority. The effective filling date for every pending claim is, thus, November 3, 1981. As Campbell issued after this effective filing date, Campbell is not available as a reference under 35 U.S.C. § 102(b).

Applicants further submit that a proper rejection under 35 U.S.C. § 102(e) has not been established in the Office Action. Under 35 U.S.C. § 102(e) an issued patent that was filed in the United States prior to the invention by Applicants of the claimed subject matter may be relied upon to show anticipation. Campbell issued from U.S. Application Serial No. 617,137 filed June 4, 1984, which is subsequent to the effective filing date of Applicants' claims. However, Campbell claims priority as a continuation of Ser. No. 348,937 filed November 27, 1981, which is a continuation-in-part (CIP) of Ser. No. 135,987 filed March 31, 1980. The earliest filing date of March 31, 1980, is apparently relied upon in the Office Action. However, "In order to carry back the 35 U.S.C. § 102(e) critical date of the U.S. patent reference to the filing date of a parent application, the parent application must . . . support the invention as required by 35 U.S.C. § 112, first paragraph." MPEP § 2136.03 (citing *In re Wertheim*, 646 F.2d 527, 209 USPQ 554 (CCPA 1981)). There is no showing in the Office Action that the application filed March 31, 1980, supports the claims in Campbell. A proper rejection under 35 U.S.C. § 102(e) has not, therefore, been established in the Office Action.

Also, it has not been demonstrated in the Office Action that the disclosure of the parent application filed March 31, 1980, includes the subject matter that is applied against the present application to negate patentability under 35 U.S.C. § 102(e). "[W]hen the reference is a

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continuation-in-part of an earlier filed application . . . and it is necessary to go back to the earlier

filing date, the fact that the subject matter relied upon was originally disclosed on that date in the

first application should be stated." MPEP § 707.05(e). Applicants submit that since the chain of

applications relied upon includes a continuation-in-part application, the disclosure of the issued

patent may not be applied under 35 U.S.C. § 102(e) without demonstrating that the subject matter

relied upon was disclosed in the application that was filed prior to the effective filing date of

Applicants' claims. In the Office Action, it is asserted that all the features relied by the

examiner to support the rejection were supported by the Campbells' parent application. There is

no support provided for this assertion. The rejection in the Office Action under 35 U.S.C. §

102(e) includes no demonstration that the subject matter relied upon was disclosed in the

application filed March 31, 1980. Accordingly, a proper rejection under 35 U.S.C. § 102(e) has

not been established.

Notwithstanding the availability of Campbell as prior art, Campbell fails to anticipate

Applicants' claims as asserted in the Office Action. The following arguments demonstrate that

Applicants' claims are patentably distinguishable from the invention disclosed in Campbell.

With respect to Applicants' **claim 3**, Campbell '791 fails to teach, *inter alia,* detecting an

instruct-to-select signal in said information transmission. The office action equates the

synchronizing signal of Campbell '791 to Applicants' claimed instruct-to-select signal.

Applicants submit that the sync signal of Campbell '791 is not detected by the IF amp detector in

Campbell '791. Instead, the detector unit generates the synchronizing signal from the video

signal. Campbell, col. 9 lines 12-14. Campbell '791 is silent as to detecting an instruct-to-select

signal or any signal that functions as Applicants' claimed instruct-to-select signal.

Further, Campbell '791 fails to suggest or describe processing said data at said computer and

selecting a plurality of subscriber data and storing said selected plurality of subscriber data at said

memory location. The office action equates the extractor 114 extracting and providing a serial

data stream from the vertical interval of the scrambled video signal to Applicants' claimed selected subscriber data. Applicants submit that although Campbell '791 clearly extracts a serial stream of data, there is no suggestion that the extracted data in Campbell '791 is subscriber data. Further, Campbell '791 teaches extracting the data prior to transmitting the data to the control logic 104, which is in complete contrast to a computer that processes data in order to select subscriber data, as claimed. Since Campbell '791 is silent as to processing data at a computer and then selecting subscriber data, Campbell '791 is utterly silent as to storing the selected subscriber data.

As stated, Campbell '791 is silent as to selected stored subscriber data. Therefore, Campbell '791 is completely silent as to <u>selecting said at least one stored subscriber datum to output</u> and <u>outputting at least one of a simultaneous presentation and a sequential presentation of said mass medium programming and said selected at least one stored subscriber datum.</u> Further, although Campbell '791 teaches outputting programming to subscribers, there is no suggestion of any simultaneous presentation and a sequential presentation of programming.

With respect to Applicants' **claim 13**, Campbell '791 fails to teach, *inter alia,* <u>receiving at a transmitter station said downloadable code which is effective at at least one of said plurality of receiver stations to select said at least one subscriber datum for at least one of simultaneous presentation and a sequential presentation of said at least one subscriber datum with mass medium programming.</u> The office action equates the subscriber enable word 210, the channel enable code 216, and the text enable code 219 of Campbell '791 to Applicants claimed downloadable code. Applicants first submit that the control words of Campbell '791 are not downloadable code.

Further, the subscriber enable word 210 simply identifies the subscriber. Col. 13 lines 26-27. There is no suggestion that the subscriber enable word 210 is effective to select

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subscriber datum for either a simultaneous or a sequential presentation of the subscriber datum with mass medium programming, as so claimed.

The channel enable code 216 of Campbell '791 simply provides bit information indicating which of the system frequency channels may be viewed by the identified subscriber at all times. Col. 13 lines 41-44. Again, there is no suggestion that the channel enable code 216 is effective to select subscriber datum for either a simultaneous or a sequential presentation of the subscriber datum with mass medium programming, as so claimed.

The text enable code 219 of Campbell '791 simply identifies the text channels, which are available for viewing by the subscriber. Col. 13 lines 46-48. Again, there is no suggestion that the text enable code 219 is effective to select subscriber datum for either a simultaneous or a sequential presentation of the subscriber datum with mass medium programming, as so claimed. Campbell '791 is silent as to any downloadable code that functions as Applicants claim.

Further, although Campbell '791 teaches outputting programming to subscribers, there is no suggestion of either a simultaneous or a sequential presentation of the subscriber datum with mass medium programming.

Further, Campbell '791 fails to suggest or describe <u>transferring said downloadable code from said transmitter station to a transmitter</u>. As stated, none of the control words in Campbell '791 function as Applicants' claimed downloadable code. Therefore, Campbell '791 is silent as to transferring such code.

Further, Campbell '791 fails to suggest or describe <u>receiving said at least one control signal at said transmitter station, said at least one control signal operating to execute said downloadable code</u>. The office action equates the channel control word 200 to Applicants' claimed control signal. Channel control word of Campbell '791 defines the codes required for access to each television program being transmitted. There is no suggestion anywhere in

Campbell '791 that the channel control word executes the subscriber addressing data words [downloadable code as indicated by the Office action].

As stated, Campbell '791 is silent as to any control signal or downloadable code that functions as claimed. Therefore, Campbell '791 is silent as to transferring said at least one control signal from said transmitter station to said transmitter and transmitting an information transmission including said downloadable code and said at least one control signal.

With respect to Applicants' **claim 17**, Campbell '791 fails to teach, *inter alia*, identifying at least one of: (a) said resource to select for at least one of simultaneous presentation and sequential presentation with mass medium programming and (b) said control signal which is effective to select said at least one subscriber datum for said at least one of simultaneous presentation and sequential presentation with said mass medium programming. The office action equates the selected channels of Campbell '791 at col. 16 lines 25-39 to Applicants' claimed resource. Applicants submit that although converter 40 selectively processes each of the 55 program channels and outputs them individually to a standard television set, there is no suggestion of a resource to select either a simultaneous or sequential presentation with mass medium programming. Further, although the converter 40 selectively processes each of the 55 program channels and outputs them, there is no suggestion of a control signal which is effective to select at least one subscriber datum for either a simultaneous or sequential presentation with mass medium programming.

Further, Campbell '791 fails to suggest or describe monitoring said identified at least one of said resource and said control signal and storing a record of the use of said at least one of said resource and said control signal from said step of monitoring. The office action equates the channel monitoring feature of Campbell '791 to Applicants' claimed monitoring step. Campbell '791 teaches monitoring channel viewing. Converter 40 transmits certain television set

monitoring information including indication that the subscriber's set is turned on, the channel it is tuned to, and when the subscriber moves between channels. There is no suggestion of monitoring a resource or control signal that functions as Applicants claim. Further, there is no suggestion of storing the monitored information. In fact, Campbell '791 teaches transmitting the monitoring information to a central data control system, without mention of first storing the information.

Further, Campbell '791 fails to suggest or describe communicating information evidencing said use of said identified at least one of said resource and said control signal from said step of storing from said receiver station to the remote station. Although Campbell '791 teaches transmitting the monitoring information to a central data control system, Campbell '791 is still silent as to monitoring and storing in a fashion as claimed by Applicants.

With respect to Applicants' **claim 19**, Campbell '791 fails to teach, *inter alia,* an instruct signal which is effective at said at least one receiver station to select said at least one subscriber datum for at least one of simultaneous presentation and sequential presentation with said mass medium programming. The office action equates the subscriber enable word 210 to Applicants claimed instruct signal. The subscriber enable word 210 simply identifies the subscriber. Col. 13 lines 26-27. There is no suggestion that the subscriber enable word 210 is effective to select subscriber datum for either a simultaneous or a sequential presentation of the subscriber datum with mass medium programming, as so claimed. Further, the office action equates the text identification code of Campbell '791 to Applicants' claimed instruct signal. The text identification code indicates when data is to be treated as text. There is no suggestion that the subscriber enable word 210 is effective to select subscriber datum for either a simultaneous or a sequential presentation of the subscriber datum with mass medium programming, as so claimed.

Further, Campbell '791 fails to suggest or describe <u>receiving said at least one control</u>

<u>signal which at the remote intermediate mass medium programming transmitter station operates</u>

<u>to control the communication of said mass medium programming</u> and <u>transmitting said at least</u>

<u>one control signal from said at least one origination transmitter before a specific time</u>. The office

action equates the sync signals at col. 8 line 3 to Applicants' claimed control signal. The sync

signals of Campbell '791 are simply divided out of the video signal to be applied to a timing

signal generator in order for the generator to count the lines of the vertical interval of each field

and output enabling signals at the appropriate time. There is no suggestion that the sync signals

in Campbell '791 operate to control the communication of said mass medium programming.

Further, there is absolutely no suggestion that the sync signals are transmitted to an origination

transmitter before a specific time, as claimed.

With respect to Applicants' **claim 22**, Campbell '791 fails to teach, *inter alia*, <u>receiving at</u>

<u>least one of a code and a datum at a transmitter station, said at least one of said code and said</u>

<u>datum designating at least one of</u>: (a) <u>a product and a service offered in said mass medium</u>

<u>programming</u> and (b) <u>said subscriber reaction.</u> The office action equates the following to

Applicants claimed code or datum:

> "Preferably a message is displayed on the television screen
>
> informing the user that the channel is dedicated for
>
> interactive information retrieval."

There is no suggestion of a code or datum that designates a product or service offered in mass

medium programming or a subscriber reaction. Instead, the subscriber is simply informed of the

nature of the channel being viewed. Further, Campbell '791 is silent as to any code or datum,

especially a code or datum that designated a product or service or a subscriber reaction.

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Further, Campbell '791 fails to suggest or describe receiving at said transmitter station an instruct signal which is effective at said at least one of said plurality of receiver stations to select said at least one subscriber datum for at least one of simultaneous presentation and sequential presentation with said mass medium programming. The office action equates the subscriber enable word 210 to Applicants claimed instruct signal. The subscriber enable word 210 simply identifies the subscriber. Col. 13 lines 26-27. There is no suggestion that the subscriber enable word 210 is effective to select subscriber datum for either a simultaneous or a sequential presentation of the subscriber datum with mass medium programming, as so claimed. Further, the office action equates the text identification code of Campbell '791 to Applicants' claimed instruct signal. The text identification code indicates when data is to be treated as text. There is no suggestion that the subscriber enable word 210 is effective to select subscriber datum for either a simultaneous or a sequential presentation of the subscriber datum with mass medium programming, as so claimed.

Further, Campbell '791 fails to suggest or describe transferring at least one of said at least one of said code and said datum and said instruct signal to a transmitter at said transmitter station at a specific time and transmitting said at least one of said at least one of said code and said datum and said instruct signal from said transmitter station. As stated, Campbell '791 is silent as to any code or datum and instruct signal that functions as claimed. Therefore, Campbell '791 is silent as to Applicants' claimed transferring and transmitting steps. Further, Campbell '791 is utterly silent as to transferring any signal, code, or datum, especially such that function as claimed, at a specific time.

With respect to Applicants' **claim 27**, Campbell '791 fails to teach, *inter alia,* receiving at one of a broadcast transmitter station and a cablecast transmitter station at least one instruct signal which is effective at said at least one of said plurality of receiver stations to select said at

least one subscriber datum for at least one of simultaneous presentation and sequential

presentation with mass medium programming. The office action equates the text enable code

219 of Campbell '791 to Applicants claimed instruct signal. The text enable code 219 of

Campbell '791 simply identifies the text channels, which are available for viewing by the

subscriber. Col. 13 lines 46-48. There is no suggestion that the text enable code 219 is effective

to select subscriber datum for either a simultaneous or a sequential presentation with mass

medium programming, as so claimed.

As stated, Campbell '791 is silent as to any signal that functions as Applicants' claimed

instruct signal. Therefore, Campbell '791 is silent as to transferring said at least one instruct

signal from said one of said broadcast transmitter station and said cablecast transmitter station to

a transmitter.

Further, Campbell '791 fails to suggest or describe receiving at least one control signal at

said one of said broadcast transmitter station and said cablecast transmitter station, wherein said

at least control signal identifies at least one specific receiver station device to which said at least

one instruct signal is addressed. The office action equates the subscriber ID code 214 of

Campbell '791 to Applicants' claimed control signal. Subscriber ID code 214 which is unique to

a specific remote subscriber station identifies the subscriber enable word 210 is appropriate only

for the identified remote subscriber. Although, subscriber ID code 214 identifies that the code is

correct for the identified subscriber, the text enable code which has been equated to Applicants'

claimed instruct signal does not function as Applicants claim. Therefore, there is no suggestion

that the subscriber ID code 214 identifies at least one specific receiver station device to which

text enable code 219 [said at least one instruct signal] is addressed.

As stated, Campbell '791 is silent as to any signal that functions as Applicants' claimed

instruct signal or control signal. Therefore, Campbell '791 is silent as to transferring said at least

one control signal from said one of said broadcast transmitter station and said cablecast transmitter station to said transmitter, said one of said broadcast transmitter station and said cablecast transmitter station one of broadcasting and cablecasting said at least one instruct signal and said at least one control signal to said at least one of said plurality of receiver stations.

With respect to Applicants' **claim 35**, Campbell '791 fails to teach, *inter alia*, outputting television programming that promotes mass medium programming. The office action equates the information retrieval feature of Campbell '791 to Applicants claimed displaying step. Campbell '791 clearly teaches that some television channels may be dedicated for interactive information retrieval to the *exclusion of video transmission*. Applicants further submit that the displaying step focuses on television programming that promotes mass medium programming. Therefore, Applicants submit that Campbell's information retrieval system fails to teach Applicants' claimed invention.

Further, Campbell '791 fails to suggest or describe prompting said subscriber during said television programming whether said subscriber wants said mass medium programming promoted in said step of displaying. As stated, the information retrieval system of Campbell '791 is dedicated for interactive information retrieval to the *exclusion of video transmission*. Col. 18 line 35. Therefore, Campbell '791 is silent as to prompting said subscriber during said television programming. Further, the office action equates the following to Applicants claimed prompting step:

> "Preferably a message is displayed on the television screen informing the user that the channel is dedicated for interactive information retrieval." Col. 18 lines 38-40.

However, there is no suggestion of prompting during a television program. Instead, Campbell '791 merely transmits a message to the subscriber.

Further, Campbell '791 fails to suggest or describe <u>receiving a reply from said subscriber</u> <u>at said input device in response to said step of prompting said subscriber</u> and <u>processing said</u> <u>reply from said step of receiving said reply and selecting at least a portion of said at least one of</u> <u>said code and said datum designating said mass medium programming</u>. Although, Campbell '791 teaches that in order to participate in the information retrieval system, the subscriber must press "enter", there is no suggestion of prompting during a television program. Therefore, any reply by the subscriber has not been prompted in the manner as claimed by Applicants. Campbell '791 is silent as to receiving a reply and processing the reply, since Campbell '791 fails to prompt during a television program as claimed. Further, Campbell '791 is silent as to any code or datum as claimed by Applicants.

As stated, Campbell '791 is silent as to any code or datum that designates the promoted mass medium programming. Therefore, Campbell '791 is completely silent as to <u>communicating</u> <u>said selected at least a portion of said code and said datum to   said remote site</u>.

Further, Campbell '791 fails to suggest or describe <u>assembling, in said network, at least a</u> <u>first signal which is effective at said interactive television viewing apparatus to deliver said at</u> <u>least one subscriber datum for at least one of simultaneous presentation and sequential</u> <u>presentation with said mass medium programming</u>. The office action equates the subscriber enable word 210 to Applicants claimed instruct signal. The subscriber enable word 210 simply identifies the subscriber. Col. 13 lines 26-27. There is no suggestion that the subscriber enable word 210 is effective to deliver subscriber datum for either a simultaneous or a sequential presentation with mass medium programming, as so claimed. Further, the office action equates the text identification code of Campbell '791 to Applicants' claimed instruct signal. The text identification code indicates when data is to be treated as text. There is no suggestion that the

subscriber enable word 210 is effective to deliver subscriber datum for either a simultaneous or a sequential presentation with mass medium programming, as so claimed.

As stated, Campbell '791 is silent as to any signal that is assembled and functions as Applicants claim. Therefore, Campbell '791 fails to suggest or describe delivering said at least said first signal at said interactive television viewing apparatus and outputting said at least one subscriber datum in at least one of a simultaneous presentation and a sequential presentation with said mass medium programming on the basis of said at least said first signal. Further, Campbell '791 is silent as to any simultaneous presentation and a sequential presentation with said mass medium programming, as so stated above.

With respect to Applicants' **claim 39**, Campbell '791 fails to teach, *inter alia,* outputting mass medium programming that promotes a specific fashion of presenting information to one of complete and supplement said mass medium programming. The office action equates the information retrieval feature of Campbell '791 to Applicants claimed displaying step. Campbell '791 clearly teaches that some television channels may be dedicated for interactive information retrieval to the *exclusion of video transmission.* Applicants further submit that the displaying step focuses on mass medium programming that promotes a specific fashion of presenting information to one of complete and supplement said mass medium programming. Therefore, Applicants submit that Campbell's information retrieval system fails to teach Applicants' claimed invention.

Further, Campbell '791 fails to suggest or describe prompting said subscriber during said mass medium programming whether said subscriber wants said information to one of complete and supplement said mass medium programming presented in said specific fashion promoted in said step of displaying. As stated, the information retrieval system of Campbell '791 is dedicated for interactive information retrieval to the *exclusion of video transmission.* Therefore, Campbell

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'791 is silent as to prompting said subscriber during said mass medium programming. Further,

the office action equates the following to Applicants claimed prompting step:

> "Preferably a message is displayed on the television screen
> informing the user that the channel is dedicated for
> interactive information retrieval." Col. 18 lines 38-40.

However, there is no suggestion of prompting during a mass medium programming whether the

subscriber wants information to complete or supplement the mass medium programming

presented in a specific fashion. Instead, Campbell '791 merely transmits a message to the

subscriber informing the subscriber that the channel is dedicated to information retrieval.

Further, Campbell '791 fails to suggest or describe <u>receiving a reply from said subscriber</u>

<u>at said input device in response to said step of prompting said subscriber</u> and <u>controlling delivery</u>

<u>of said mass medium programming in response to instructions</u>. Although, Campbell '791 teaches

that in order to participate in the information retrieval system, the subscriber must press "enter",

there is no suggestion of prompting in the manner as claimed by Applicants. Therefore,

Campbell '791 is silent as to receiving a reply, since Campbell '791 fails to prompt during a mass

medium programming whether the subscriber wants information to complete or supplement the

mass medium programming presented in a specific fashion. Further, Campbell '791 is silent as to

any instructions that control delivery of mass medium programming, since Campbell's

information retrieval system excludes video transmission.

Further, Campbell '791 fails to suggest or describe <u>delivering said instructions at said</u>

<u>interactive mass medium programming output apparatus in response to said step of receiving said</u>

<u>reply, said instructions controlling said interactive mass medium programming output apparatus</u>.

Although, Campbell '791 teaches that the subscriber presses "enter" links the converter to remote

data bank, there is no suggestion of delivering instructions in response to receiving a reply that is

prompted in the manner as claimed by Applicants in order to control an output apparatus.

As stated, Campbell '791 is silent as to any instructions that function in the manner as claimed by Applicants. Therefore, Campbell '791 fails to suggest or describe <u>processing said instructions from said step of delivering, said instructions effective to select said at least one subscriber datum for at least one of simultaneous presentation and sequential presentation with said mass medium programming</u>. Further, the information retrieval system of Campbell '791 is dedicated to interactive information retrieval with the exclusion of video transmission. Therefore, Campbell '791 is utterly silent as to a simultaneous presentation and sequential presentation with said mass medium programming.

As stated, Campbell '791 is silent as to any instructions that function in the manner as claimed by Applicants. Therefore, Campbell '791 fails to suggest or describe <u>presenting said information to one of complete and supplement said mass medium programming in said specific fashion on the basis of said instructions</u>. Campbell '791 is silent as to the information retrieval system being capable of completing and supplementing mass medium programming.

With respect to Applicants' **claim 43**, Campbell '791 fails to teach, *inter alia,* <u>detecting one of a presence and an absence of one of a broadcast control signal and a cablecast control signal</u> and <u>inputting an instruct-to-react signal to a processor based on said step of detecting</u> and <u>controlling said processor to output specific information in response to said instruct-to-react signal</u>. The office action equates the data that is buffered and decoded by timer decoder unit 414 to Applicants' claimed control signal. Applicants submit that the timer decoder fails to detect a control signal and then input an instruct-to-react signal to a processor based on the detection. Timer decoder 414 of Campbell '791 simply buffers and decodes the data for transmission to microprocessor 410.

Further, Campbell '791 fails to suggest or describe <u>selecting said at least one datum for at least one of simultaneous and sequential presentation with mass medium programming on the</u>

basis of information received from said processor based on said step of controlling said processor. The office action equates the subscriber's selection of programming to Applicants' claimed selecting step. Applicants submit that although Campbell '791 clearly tranmits desired programming to subscribers, there is no suggestion whatsoever of at least one selected datum for either a simultaneous or sequential presentation with mass medium programming based on information received from a controlled processor. Campbell '791 fails to anticipate Applicants' claimed invention.

Claims 4-12, 14-16, 18, 20, 21, 23-26, 28-34, 36-38, 40-42, and 44-46 depend upon any one of independent claims 3, 13, 17, 19, 22, 27, 35, 39, and 43. As discussed *supra*, Campbell '791 fails to disclose every element of claims 3, 13, 17, 19, 22, 27, 35, 39, and 43and thus, *ipso facto*, Campbell '791 fails to anticipate dependent claims 4-12, 14-16, 18, 20, 21, 23-26, 28-34, 36-38, 40-42, and 44-46, and therefore, this rejection should be withdrawn and the claim be permitted to issue.
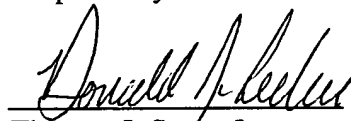
Applicants respectfully submit that the cited art does not anticipate claims 3-46 since the reference fails to disclose every element of the claimed invention, and Applicants respectfully request that the 35 U.S.C. § 102 (b) rejection of claims 3-46 be withdrawn.

III.   CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,

Date: February 18, 1999
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